

WHAT IS CLAIMED IS:

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a1 ✓ 1. A method for providing network management of a submarine cable network, the method comprising:

monitoring a plurality of physical connections between a first line terminating equipment and a second line terminating equipment;

selectively receiving alarm signals from at least one of the first line terminating equipment and the second line terminating equipment; and

reconfiguring the submarine cable network based upon the receiving step.

2. The method according to claim 1, wherein the reconfiguring step is performed to restore service according to a plurality of classes of services.

3. The method according to claim 1, wherein the reconfiguring step is performed to provision services on the submarine cable network.

4. The method according to claim 1, further comprising:  
interfacing with the first line terminating equipment and the second line terminating equipment using binary alarm interfaces.

5. The method according to claim 1, wherein the steps of receiving the alarm signals and reconfiguring are performed by a network management module.

6. The method according to claim 5, wherein the network management module resides within at least one of the first line terminating equipment and the second line terminating equipment.

7. The method according to claim 5, wherein the network management module resides within a switching system.

8. The method according to claim 1, wherein the reconfiguring step is performed to provide restoration of the submarine cable network, the reconfiguring step comprising:

detecting a fault on one of the plurality of physical connections based upon the received alarm signals;

retrieving restoration information; and

rerouting the traffic on the one physical connections to another one of the plurality of physical connections based upon the restoration information.

9. The method according to claim 1, further comprising:

receiving provisioning data that include capacity requirements of a customer; and

reconfiguring the submarine cable network based upon the capacity requirements.

10. A communication system for providing network management of a submarine cable network, the system comprising:

a line terminating equipment configured to monitor a plurality of physical connections of the submarine cable network; and

a network management module configured to receive selectively an alarm signal from the line terminating equipment and to reconfigure the submarine cable network based upon the received alarm signal.

11. The system according to claim 10, further comprising:

a database configured to store restoration information, wherein the network management module reconfigures the submarine cable network to provide restoration services according to a plurality of classes of services and the stored restoration information.

12. The system according to claim 10, wherein the network management module reconfigures the submarine cable network to provision services on the submarine cable network.

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13. The system according to claim 10, further comprising:  
a switching system configured to forward and receive traffic from the submarine cable network; and  
a binary interface coupled to the switching system and configured to strip alarm signals from the line terminating equipment, wherein the binary interface forwards the alarm signals to the network management module.
14. The system according to claim 13, wherein the network management module resides within the switching system.
15. The system according to claim 13, wherein the network management module resides within the line terminating equipment.
16. The system according to claim 10, wherein the network management module is further configured to detect a fault on one of the plurality of physical connections based upon the received alarm signals to reroute the traffic on the one physical connections to another one of the plurality of physical connections.
17. The system according to claim 10, wherein the network management module is further configured to receive provisioning data that include capacity requirements of a customer and to reconfigure the submarine cable network based upon the capacity requirements.
18. A computer-readable medium carrying one or more sequences of one or more instructions for providing network management of a submarine cable network, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:  
monitoring a plurality of physical connections between a first line terminating equipment and a second line terminating equipment;

selectively receiving alarm signals from at least one of the first line terminating equipment and the second line terminating equipment; and

reconfiguring the submarine cable network based upon the receiving step.

19. The computer-readable medium according to claim 18, wherein the reconfiguring step is performed to restore service according to a plurality of classes of services.

20. The computer-readable medium according to claim 18, wherein the reconfiguring step is performed to provision services on the submarine cable network.

21. The computer-readable medium according to claim 18, wherein the one or more processors further perform the step of:

interfacing with the first line terminating equipment and the second line terminating equipment using binary alarm interfaces.

22. The computer-readable medium according to claim 18, wherein the steps of receiving the alarm signals and reconfiguring are performed by a network management module.

23. The computer-readable medium according to claim 22, wherein the network management module resides within at least one of the first line terminating equipment and the second line terminating equipment.

24. The computer-readable medium according to claim 22, wherein the network management module resides within a switching system.

25. The computer-readable medium according to claim 18, wherein the reconfiguring step is performed to provide restoration of the submarine cable network, the reconfiguring step comprising:

detecting a fault on one of the plurality of physical connections based upon the received alarm signals;

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retrieving restoration information; and

rerouting the traffic on the one physical connections to another one of the plurality of physical connections based upon the restoration information.

26. The computer-readable medium according to claim 18, wherein the one or more processors further perform the step of:

receiving provisioning data that include capacity requirements of a customer; and

reconfiguring the submarine cable network based upon the capacity requirements.

27. A communication system for providing network management of a submarine cable network, the system comprising:

means for monitoring a plurality of physical connections of the submarine cable network;

means for selectively receiving alarm signals from the monitoring means; and

means for reconfiguring the submarine cable network based upon the received alarm signals.

28. The system according to claim 27, wherein the reconfiguring means restores service of the submarine cable network according to a plurality of classes of services.

29. The system according to claim 27, wherein the reconfiguring means provides provisioning of services on the submarine cable network.

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